

What Is Claimed Is:

1. A method for producing a lens, in particular a spectacle lens, wherein central aberrations of an eye, to be corrected, of an ametropic person, such as sphere, cylinder and axis, being compensated, wherein at least one refracting surface of said lens is configured in a way that for at least one direction of view both a dioptric correction of the ametropia is performed and aberrations of higher order whose effects on the visual acuity and/or contrast viewing are a function of the size of the pupillary aperture of said eye to be corrected, are corrected by said lens.
2. The method as claimed in claim 1, wherein a spherical aberration is corrected as aberration of higher order.
3. The method as claimed in claim 1, wherein a coma is corrected as aberration of higher order.
4. The method as claimed in claim 1, wherein a trefoil aberration is corrected as aberration of higher order.
5. The method as claimed in claim 1, wherein values required for correcting said aberrations are determined by measuring visual acuity, in particular by determining refraction and/or by measuring a wavefront and/or by measuring a wavefront and/or by skiascopy.
6. The method as claimed in claim 5, wherein said wavefront is measured with a Hartmann-Shack sensor.

7. The method as claimed in claim 1, wherein the size of said pupillary aperture is determined for correcting said aberrations, in particular said aberrations of higher order.

8. The method as claimed in claim 1, wherein at least 50%, preferably at least 75%, of said aberrations of higher order are compensated solely by a correction of said central aberrations such as sphere, cylinder and axis.

9. The method as claimed in claim 1, wherein at least 50%, preferably at least 85%, of said spherical aberration, is compensated solely by a correction of said central aberrations, such as sphere, cylinder and axis.

10. The method as claimed in claim 1, wherein a region of highest visual acuity is formed by introducing at least one aspheric surface.

11. The method as claimed in claim 1, wherein a region of highest visual acuity is formed by introducing at least one atoric surface.

12. The method as claimed in claim 1, wherein a region of highest visual acuity is formed by introducing at least one free form surface.

13. The method as claimed in claim 1, wherein a region in said lens is corrected for an infinite object distance.

14. The method as claimed in claim 1, wherein a region in said lens is corrected for a finite object distance.

15. The method as claimed in claim 1, wherein a transition of a region with highest visual acuity into a region with slightly reduced visual acuity is performed via an edge.

16. The method as claimed in claim 1, wherein a transition of a region with highest visual acuity into a region with slightly reduced visual acuity is performed smoothly.

17. A lens produced according to one the method of claim 1, characterized by a design as a spectacle lens, contact lens or intraocular lens.

18. The lens as claimed in claim 17, characterized by refractive and/or diffractive structures in at least one refracting surface, both for the dioptric correcting surface, both for the dioptric correction of an ametropia and for the correction at least of one aberration of higher order for at least one direction of view.

19. The lens as claimed in claim 17, characterized by materials of glass and/or plastic.